



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

erties, but, if we except the mental side, as a merely physical object included in the category of natural bodies; an object which is subject to the same laws of nature as are wood and iron, but which, nevertheless, like wood and iron, has its own peculiar qualities."

THE HISTOLOGY OF STRIPED MUSCLE-FIBER.—Mr. B. Melland makes an important contribution to the literature treating of the structure of muscular tissue. His view is a confirmation and extension of that long since announced by Schäfer (*Quain's Anatomy*, 2d vol.). The following is a summary of the author's main results: "There is an intra-cellular net-work present in the muscle-fiber of *Dytiscus*, the bee, frog, lobster, crayfish and rat, which may be most clearly demonstrated by certain methods of gold staining. The net-work alone is stained by the reduced gold, and, owing to this differentiation, is plainly visible with comparatively low powers. This net-work may be demonstrated, though not so completely, in the living fiber, and in acetic and osmic acid preparations. Crossing the fiber transversely, united to the sarcolemma, and more or less separating the muscle-fiber into compartments, are net-work partitions—the transverse net-works. Running longitudinally down each compartment, and joining the dots at the intersections of the fibers of the transverse net-work, are a series of fine rods. This net-work consists of an isotropous material, and is more highly refractile than the rest of the muscle substance, which is anisotropous. This net-work serves to explain the transverse striation and other complicated appearances presented by the muscle-fiber, and brings into harmony many of the conflicting statements of histologists on this subject."—*Quart. Journ. Mic. Sci.*, 1885, p. 371.

#### PSYCHOLOGY.

INTELLIGENCE OF THE ELEPHANT.—In his interesting *Two Years in the Jungle*, Mr. Hornaday, gives us these impressions of the intelligence of the elephant:

The elephant is the most patient and obedient of all animals, and by far the most intelligent. He has more ability to reason from cause to effect than most other animals of docile temperament, and he is, beyond all question, the most capable of being taught, and the most willing to obey after he has been taught. To me it is a matter of surprise that Mr. Sanderson, who has, I presume, more personal knowledge of the animal, both tame and wild, than any European living, should place so low an estimate upon his mind. He declares that "its sagacity is of a very mediocre description," and also that "its reasoning faculties are far below those of the dog, and possibly other animals."

From this view, which I think is due to the fact that "familiarity breeds contempt," I differ very widely. My acquaintance with tame elephants has created in my mind a respect for their

intellectual qualities which I never could have acquired in any other way. A trained dog or horse is such a rarity, even among the thousands of their species, that it is considered a proper object to exhibit at a circus. A horse which will promptly back at the word of command, or a dog that will bark or stand on its hind legs when told to do so, is considered quite accomplished; but in India any well-trained elephant, at a word or touch from his driver, who sits astride his neck, will "hand up," "kneel," "speak" (trumpet), "salaam" (salute with his trunk), stop, back, lie down, pull down an obstructing branch, gather fodder and "hand up" to his attendant, turn or lift a log, or drag it by taking its drag-rope between its teeth. He will also protect his attendants, or attack a common enemy with fury. I think I am safe in asserting that there are in India to-day scores of captive elephants who are capable of performing all the services enumerated above; but of course there are many which are not so intelligent.

Contrast with this the performances of our most intelligent breed of dogs, the pointer. Even when young and trained under the most favorable circumstances, they are at best but capable of being taught only a few things, as to "go on," to "charge," to go in a given direction, and retrieve. The extreme difficulty of teaching a dog anything after he has passed his puppyhood is so universally acknowledged as to have given rise to the familiar proverb, "It is hard to teach an old dog new tricks." What a strong contrast is seen in the wild "koomeria" elephant, caught when he was about sixty years old (by Mr. Sanderson), who "was easily managed a few days after his capture." Of all animals in the world what other would have so quickly learned that mind is superior to matter, that man is master of the dumb brute, or would have succumbed so gracefully to the inevitable?

INTELLIGENCE OF THE ORANG.—We will not say anything about the place the orang has in the long chain of evolution; but while abstract argument leads hither and thither, according as this or that writer is most ably gifted for the same, there is still one argument or influence to which every true naturalist is amenable and which no one will ignore who has studied from nature any group of typical forms. Let such an one (if, indeed, one exists to-day), who is prejudiced against the Darwinian views, go to Borneo. Let him there watch from day to day this strangely human form in all its various phases of existence. Let him see the orang climb, walk, build its nest, eat, drink and fight like a human rough. Let him see the female suckle her young and carry it astride her hip precisely as do the coolie women of Hindostan. Let him witness their human-like emotions of affection, satisfaction, pain and rage—let him see all this, and then he may feel how much more potent has been this lesson than all he has read in pages of abstract ratiocination.—*Hornaday's Two Years in the Jungle.*